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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/556,132	04/21/2000	Roger G. Etter	ENV1298.002D	6699

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EXAMINER	
GRIFFIN, WALTER DEAN	

ART UNIT	PAPER NUMBER
1764	

DATE MAILED: 02/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/556,132	ETTER, ROGER G.
	Examiner	Art Unit
	Walter D. Griffin	1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, see pages 14-30, filed December 4, 2003, with respect to the rejection(s)of claim(s) 1-44 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, new grounds of rejection are made as detailed below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-16, 37, 40, and 45-56 are indefinite because the expression "the increased porosity" in line 16 of claim 1 lacks proper antecedent basis.

Claim 11 is also indefinite because the location where the hydrocarbon compounds are added is unclear.

Claims 17-36, 38, 39, and 41-44 are indefinite because it is unclear to what the coke is compared in step (b) in order to determine the increased porosity and improved adsorption characteristics.

Claim 20 is also indefinite because the location where the hydrocarbon compounds are added is unclear.

Claims 12 and 21 contain the trademark/trade names Fluid Coking® and Flexicoking ®. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe the type of coking and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows.

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3, 7, 8, 10-17, 19-29, and 33-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gamson (US 3,684,697) in view of DE 19540780A1.

The Gamson reference discloses a process for producing a sponge coke. The process comprises obtaining a coke precursor material derived from crude oil such as residual hydrocarbon from distillation processes and mixing it with another material such solid residue from synthesis of plastics (e.g., polyethylene and polypropylene) or aromatic oils. The additional material is added in amounts ranging from 5 to 40 volume percent. This range would necessarily include amounts within the claimed ranges for amounts of additive. The mixture is then subjected to delayed coking conditions to produce the sponge coke. The coke is cooled and then recovered. The addition of the material to the precursor would necessarily improve the adsorption characteristics of the resulting coke. Also, since the additional material of Gamson is the same as claimed, the resulting coke would appear to have VCM amounts and other characteristics such as surface area within the claimed ranges and would be produced in yields within the claimed ranges. See entire document.

The Gamson reference does not disclose adding at least one chemical compound to the coke in a coke-quenching portion of the thermal cracking process.

The DE 19540780A1 discloses the quenching of coke with an aqueous solution that contains iron salts and oxygen-containing compounds. See entire document and the English language abstract.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Gamson by including the quenching step disclosed by the DE 19540780A1 reference because atmospheric pollution will be reduced. The coke resulting from the modified process would appear to be the same as that which is claimed.

The Gamson reference also does not disclose shredding the plastic and injecting using the claimed means at the claimed location.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Gamson by shredding the plastic and using the claimed means to shred and inject the plastic because solids would be dispersed more easily if reduced in size and the coking would occur regardless of the specific method of shredding and mixing. Therefore, one having ordinary skill in the would use any means to shred and add the plastic and one would add the solids to the liquid anywhere prior to the coking zone and expect the desired results of sponge coke formation.

Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gamson (US 3,684,697) in view of DE 19540780A1 as applied to claims 1 and 17 above, and further in view of Wasson et al. (US 4,388,152).

The previously discussed references do not disclose the desalting step.

The Wasson reference discloses the desalting of the feed to a coking zone. See column 2, lines 43-58.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the previously discussed references by desalting the feed to the coking zone as suggested by Wasson because a coke of improved quality will result.

Claims 4-6 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gamson (US 3,684,697) in view of DE 19540780A1 as applied to claims 1 and 17 above, and further in view of Yan (US 4,096,097).

The previously discussed references do not disclose the claimed carbonaceous material.

The Yan reference discloses that carbonaceous materials having oxygen amounts within the claimed range such as wood and sawdust can be added to a coking zone feed to produce a sponge coke. See column 3, lines 19-60.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the previously discussed references by using the carbonaceous materials disclosed by Yan instead of those disclosed by Gamson because using either reference's additive material results in the production of sponge coke. Therefore, the materials of Yan and Gamson perform an equivalent function and substituting functional equivalents is within the level of ordinary skill.

Double Patenting

Applicant is advised that should claims 38 and 39 be found allowable, claims 42 and 43 will be objected to under 37 CFR 1.75 as being substantial duplicates thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same

thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985), *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F 2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 7-29, and 33-56 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5, 11, 12, and 15-21 of U.S. Patent No. 6,168,709 in view of DE 19540780A1.

The patented claims disclose a process for making a coke and the coke made by the process. The patented claims do not include the step of adding a chemical to the coke during the quenching step.

The DE 19540780A1 reference discloses the quenching of coke with an aqueous solution that contains iron salts and oxygen-containing compounds. See entire document and the English language abstract.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the patented claims by including the quenching step

disclosed by the DE 19540780A1 reference because atmospheric pollution will be reduced. The coke resulting from the modified process would appear to be the same as that which is claimed in the present application.

Claims 1-56 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 19-33 of copending Application No. 09/763282. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are directed to essentially the same coking process with the specification of various waste material, i.e., the recitation of plastic wastes in the co-pending application, while omitting the same here. The invention as a whole would have been obvious to one having ordinary skill in the art since both sets of additives have common elements, e.g., wood wastes.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The examiner notes that applicant states that the claims in 09/763282 will be amended to distinguish over the claims of the present application. However, a compliant amendment has not yet been entered.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter D. Griffin whose telephone number is (571) 272-1447.

The examiner can normally be reached on Monday-Friday 6:30 to 4:00 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Walter D. Griffin
Primary Examiner
Art Unit 1764

WG
February 9, 2004